

REMARKS

Claims 1, 3-8 and 11-20 are now pending in the application. Claims 1, 3-8 and 11 have been amended and claims 19 and 20 have been added. Claim 1 is independent. Reconsideration of this application, as amended, is respectfully requested.

Election/Restriction

Claims 11-18 stand withdrawn from further consideration by the Examiner as being directed to a non-elected invention. Applicant respectfully requests the Examiner to withdraw the Restriction Requirement since apparatus claim 11 has been amended to depend from independent claim 1. In view of this, the apparatus as claimed cannot be used to practice another and materially different process as asserted by the Examiner in the Restriction Requirement dated March 11, 2003. Specifically, the Examiner asserts that the apparatus as claimed can be used to practice another and materially different process such as one without a work piece and film, but instead is used only with a film. Since claim 11 now depends from independent claim 1, the apparatus now requires the method of the present invention and therefore cannot be used to practice another and materially different process. It should also be noted that claim 11 as originally presented does not indicate that only film is used in the apparatus but clearly states that the molding die clamps "a work piece with release film." In view of this, the Examiner's Restriction Requirement is improper for this additional reason.

In view of the above amendments and remarks, Applicant submits that claims 11-18 are not distinct from method claims 1-10 and therefore should be examined in the present application. Accordingly, reconsideration and withdrawal of the Examiner's Restriction Requirement are respectfully requested.

With regard to additional claims 19 and 20, these claims depend from independent claim 1 and are therefore directed to the elected invention. Favorable consideration of claims 19 and 20 is therefore respectfully requested.

Objection to the Specification

The specification stands objected to since the Title is not descriptive. As the Examiner will note, the Title has not been amended at this time, since it is believed that apparatus claims 11-18 should be examined in the present application. If the Examiner does persist in the Restriction Requirement and claims 11-18 are canceled, Applicant will amend the Title in the manner suggested by the Examiner.

Rejection Under 35 U.S.C. § 102

Claims 1, 2, 9 and 10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Seng et al., USPN 6,439,869. This rejection is respectfully traversed.

At the outset, it is respectfully pointed out that claims 2 and 9 have been canceled without prejudice or disclaimer of the subject matter contained therein. Accordingly, the

Examiner's rejection under 35 U.S.C. § 102 has been rendered moot with regard to these claims.

The present invention is directed to a method of resin molding, wherein a combination of steps is recited including "discharging the air from the sealed specific area." In addition, independent claim 1 recites that "the release film covers a whole parting face of the molding die, which faces a pot thereof" and "the one face of the substrate is covered with the release film in said covering step, the one face of the substrate is air-tightly sealed in said clamping step."

Since the one face of the substrate, on which the electronic device is mounted, is covered with the release film and the air is discharged, no air is left in the molding section, which will be filled with the resin. Therefore, the substrate can be resin-molded without forming voids. Furthermore, by discharging the air from the sealed specific area, the release film can easily fit onto the outer faces of the electronic device, so that the space between the substrate and the electronic device can be easily filled with resin. Applicant respectfully submits that the Seng et al. reference relied on by the Examiner fails to anticipate the above aspects of the present invention. Accordingly, the Seng et al. reference cannot accomplish the advantages of the present invention.

In particular, Seng et al. is directed to an apparatus for molding semiconductor components. Referring to FIG. 3A of Seng et al., release films 38 cover the mold cavities 16 formed in the mold chase 12. In view of this, the release film 38 of Seng et al. does not

cover "a whole parting face of the molding die, which faces a pot thereof" as required by independent claim 1 of the present invention.

Referring to FIG. 4A of Seng et al., a semiconductor die 64 is mounted to a die mounting site 42. Since the release film is located between the die mounting site 42 and the semiconductor die 64, the semiconductor die 64 is not covered with the release film. In view of this, the "one face" of the substrate, i.e., the face of the substrate with the electronic device, is not covered with the release film in said covering step, the one face of the substrate being air-tightly sealed in said clamping step as required by independent claim 1 of the present invention. Accordingly, the Seng et al. reference fails to anticipate independent claim 1 for this additional reason.

In addition to the above, it should be noted that Seng et al. fails to disclose the discharging step of the presently claimed invention. Referring to FIG. 3A of Seng et al., the air pressure openings 40 are only used to hold the release film 38 within the cavities 16. In view of this, the air which the Examiner considers to be exhausted through the air pressure openings 40 is not discharged from the "sealed specific area" as in the present invention. In view of this, the technical idea of discharging air as in the present invention is not disclosed or suggested in the Seng et al. reference.

In view of the above amendments and remarks, Applicant respectfully submits that claims 1 and 10 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 102 are respectfully requested.

Double Patenting

Claims 1-10 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of Miyagawa et al., USPN 6,261,501. This rejection is respectfully traversed.

The Examiner asserts that the Miyagawa et al. reference discloses evacuating air to seal the release film against the die as well as the component and filling the cavity with molding resin. However, a proper double patenting rejection relies on the claims of a prior patent or application and not the disclosure. Since the claims of Miyagawa et al. are not directed to evacuating air to seal the release film, Applicant submits that the Examiner's rejection is improper and should be withdrawn. In addition, for the reasons mentioned above with regard to the Seng et al. reference, the evacuation of air in the disclosure of Miyagawa et al. is only to seal the release film against the die. In view of this, the one face of the substrate is not air-tightly sealed in the clamping step as required by independent claim 1 of the present invention. In addition, the air is not discharged from the "sealed specific area" as in the presently claimed invention. Specifically, in Miyagawa et al., release film is used, and a work piece is partially sealed with an elastic material so as to prevent the invasion of resin. However, the technical idea of discharging air is not disclosed or suggested by this reference.

With regard to the dependent claims, the Miyagawa et al. reference fails to disclose any of the recited aspects of the present invention, in addition to the discharging step of claim 1. In view of the above amendments and remarks, Applicant respectfully submits that

the Examiner's rejection under the judicially created doctrine of obviousness-double patenting is improper and should be withdrawn. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Allowable Subject Matter

In the Examiner's Office Action, the only pending claims rejected by the Examiner in view of the prior art reference to Seng et al. are claims 1 and 10. In view of this, it is believed that claims 3 and 5-8 define the present invention over the prior art. If the Examiner does not believe that claims 3 and 5-8 define over the prior art, it is respectfully requested that the Examiner clarify this in the next Office Communication.

CONCLUSION

Since the remaining references cited by the Examiner have not been utilized to reject the claims, but merely to show the state-of-the-art, no further comments are deemed necessary with respect thereto.

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Paul C. Lewis, Registration No. 43,368 at (703) 205-8000 in the Washington, D.C. area.

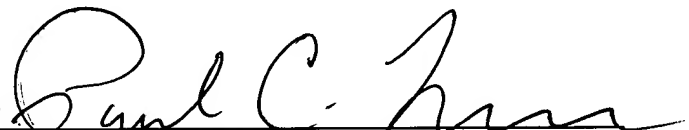
Applicant respectfully petitions under the provisions of 37 C.F.R. § 1.136(a) and § 1.17 for a one-month extension of time in which to respond to the Examiner's Office Action. The Extension of Time Fee in the amount of **\$110.00** is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By



James M. Slattery, #28,380

for

P.O. Box 747

Falls Church, VA 22040-0747

(703) 205-8000

#43,368

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Attachment(s)

The PTO did not receive the following
listed item(s) CHECK \$110.00